

Central Federal Lands Highway Division

Project Schedule and Resource Management

Version (Date): January 16, 2004

Activity ID: D2.1	Activity Title: Develop 50% Design
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Activity Definition: Develop and distribute the 50% design. Note: Develop 50% Design is usually only necessary if the project is a 4R with Right-of-Way.

Predecessor Activities (ID's) & Relationships (i.e.: FS, SS, or FF) & Time Lag:	Successor Activities (ID's) & Relationships (i.e.: FS, SS, or FF) & Time Lag:
1. Pred: D2SV Rel: FS Lag: 0	1. Succ: D2.1PR Rel: FS Lag: 0
2. Pred: Rel: Lag:	2. Succ: S3 Rel: FS Lag: 0
3. Pred: Rel: Lag:	3. Succ: Rel: Lag:
4. Pred: Rel: Lag:	4. Succ: Rel: Lag:
5. Pred: Rel: Lag:	5. Succ: Rel: Lag:
6. Pred: Rel: Lag:	6. Succ: Rel: Lag:

Required Activity Tasks:

DESIGN/PLANS

1. Incorporate comments from the 30% field review.
2. Refine the typical sections and update the horizontal and vertical alignments.
3. Identify and include preliminary locations for pullouts and approach roads.
4. Determine any utility conflicts.
5. Review the current environmental documents for the projects. Become familiar with the environmental policy, impacts and issues associated with the project. Support the environmental process as necessary.
6. Develop preliminary major structural design.
7. Develop safety design.
8. Prepare or update a draft Highway Design Standards form.
9. Develop preliminary drainage design.

10. Update plan and profile sheets.
11. Calculate quantities for the major bid items and bid tabulations for major items.
12. Develop details and specials as necessary.
13. Verify that the most up-to-date standards are included.

ESTIMATE

14. Develop the preliminary unit price analysis for major pay items.
15. Develop a preliminary cost estimate (Class “C” estimate).

REVIEW

16. Coordinate 50% field review (as required).
17. Assemble, print and distribute the 50% package to internal and external agencies.

18. **For A/E projects:**

- Assist PM in writing scope of work & IGE as requested
- Assist PM in negotiations as requested.
- Attend progress meetings as requested
- Items 16 and 17 (above) only apply to outsourced A/E projects